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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,046

04/02/2004

Dethe Elza

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10/19/2006

PERKINS COIE LLP

PATENT-SEA

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EXAMINER

BOTTS, MICHAEL K

ART UNIT

PAPER NUMBER

2176

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/817,046	Applicant(s) ELZA ET AL.	
	Examiner Michael K. Botts	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>July 20, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This document is a Final Office Action on the merits. This action is responsive to the following communications: Amendment in Response to Non-Final Office Action, which was filed on July 20, 2006.
2. Claims 1-30 are currently pending in the case, with claims 1 and 16 being the independent claims.
3. The drawings were objected to. Applicants have made submitted replacement drawings for figures 2, 9, 14, and 16. The Amendments noted in the Amendments to the Drawings section of Applicants Amendment in Response to Non-Final Office Action, page 5, are accepted and, accordingly, those objections are withdrawn. Other objections to the drawings, as noted below, are maintained.
4. The specification was objected to. Applicants made some appropriate amendments to the specification in response to the objections, accordingly, those amendments are withdrawn. Other objections to the specification, as noted below, are maintained.
5. Claims 1-30 are rejected.

Information Disclosure Statement

6. A signed and dated copy of applicant's IDS, which was filed on July 20, 2006, is attached to this Office Action.

Drawings

7. The drawings are objected to because of the specific reasons cited below.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled; the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to because of the following reasons:

Regarding all Figures, generally: Lead lines are generally missing. Lead lines are required for each reference character except for those that indicate the surface or cross section on which they are placed. See MPEP 608.02(q). Applicants are required to

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review all figures and make appropriate corrections in order to comply with 37 CFR 1.121(d) and MPEP 608.02(q).

Regarding Figures 3, 7B, 7C, 7D, 15, 16, 17, and 18: Reference numbers to the items therein are necessary to understand the figures. See, 35 U.S.C. 113.

Regarding Figure 1: Items 106, 108, and 112 contain labels within shaded regions. Numbers, letters, and reference characters should not be placed upon shaded surfaces. See, MPEP 608.02(p)(3).

Regarding Figure 3: Two items are labeled "302." The same reference character must never be used to designate different parts. See, MPEP 608.02(p)(5). It is suggested that if the parts are similar, applicants may identify the parts as "302A" and "302B," or adopt a similar distinctive identification scheme.

Regarding Figures 3 and 4: Parts of Figure 4 appear to be an expanded view of part of Figure 3, but the relationship between the Figures is not clear. It is assumed that Applicants intended to further illustrate the relationships between items on Figure 3 in Figure 4, and based on that assumption, Applicants are directed to clearly show that relationship. See, MPEP 608.02(h) for guidance in showing exploded and partial views.

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Further regarding Figures 3 and 4: It appears that items in Figure 3 also appear in Figure 4, but under different identification numbers. The same part of an invention appearing in more than one view of the drawing must always be designated by the same reference character. See, MPEP 608.02(p)(4). For example, the same items with multiple reference numbers include: 302 as 401; 304 as 407; 306 as 413; 310 as 410; and, many other multiple numbers. Applicants are required to review all Figures and make appropriate correction such that the identification numbers are uniform and consistent.

Regarding Figure 4: Items 418, 420, and 422 are not related to the rest of the figure. The disclosure identifies relationships for the items, but such relationships are not identified in the drawings. Specifically, item 418 is disclosed to relate to DDOM Client 407 through the DDOM protocol adapter and Message layer 412, but no such relationship is shown in the drawing. See, Specification, paragraph [0080]. Similarly, relationships are disclosed in paragraphs [0085] for items 420 and 422, but such relationships are not shown in the drawing. Appropriate correction is required.

Regarding Figure 7A: This Figure appears to be an exploded view of the "Server: MutateTree Routine" identified in Figure 10A, item 1014. Appropriate correction is required to properly identify the relationship of Figure 7A to Figure 10A and to make the reference numbers uniform and consistent. See, MPEP 608.02(h) and 608.02(p)(4).

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Regarding Figure 8: This appears to be a full or partial exploded view of the "Broadcast" as disclosed in Figure 4, item 422. The relationship, if any, of this Figure must be clarified in relation to any other figures or items. See, MPEP 609.02(h).

Regarding Figure 9: The decision flow appears to be in error. Specifically, decision elements leading from items 904 and 906 do not make sense logically. In addition, it is unclear but appears from comparing Figure 9 to the disclosure, [00123], that the flow arrow from 908 to 916 should be to 908 instead. It also appears that the start should lead to block 906. Appropriate correction to accurately reflect the decision flow is required.

Regarding Figure 10A: It appears that items 1014 and 1016 are condensations of full or partial views disclosed in Figures 7A and 10B respectively. See, MPEP 608.02(h). Appropriate correction to accurately reflect the relationship between the views is required.

Regarding Figure 10B: As discussed above, it appears that Figure 10B is a full or partial exploded view of Figure 10A, item 1016. Appropriate correction to accurately reflect the relationship between the views is required.

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Regarding Figure 14: Item 1413 does not appear in the disclosure. Reference characters not mentioned in the description shall not appear in the drawings. See, MPEP 608.02(p)(5). Appropriate correction is required.

Regarding Figures 16, 17, and 18: These drawings appear to present a flow of data or information, but it is unclear what is being shown and to where the various flow lines lead. See, 35 U.S.C. 113. As is noted above, reference numbers should assist in making the figures more clear. It is also suggested that Applicants consider using alternative flow chart diagrams to show illustrate the invention.

Regarding Figures 1, 5, 6, 9, and 11: Figures 1, 5, 6, 9, and 11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9. In that there were so many corrections and clarifications noted in the drawings, Applicants are directed to review all drawings to ensure that they meet the law and rules for such drawings. In making their corrections, Applicants are cautioned against introducing any new matter into any new Figures.

The Specification

10. Applicant is required to update the status (pending, allowed, etc.) of all parent priority applications in the first line of the specification. The status of all citations of U.S. filed applications in the specification should also be updated where appropriate.

11. Many elements are discussed in the disclosure without citation to reference numbers, where those same elements are identified in the drawings by reference number. See, e.g., paragraphs [0076]-[0096]. For clarity of understanding, it is suggested that the drawing elements referred to in the disclosure should be followed by the appropriate reference number. See, MPEP 2163.02. Appropriate correction is suggested.

12. Paragraphs [00123]-[00125] and Figure 9 appear to disclose a decision tree for a "Mutation" routine. The logic in the decision tree appears to be in error. The confusion may be due at least in part from the omission of some of the choices from the decision tree: specifically items 904 and 906. Applicant should examine the cited paragraphs and Figure to ensure that they are accurate. Appropriate correction is required.

13. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims Rejection – 35 U.S.C. 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 1-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iverson, Lee, "NODAL: A Filesystem for Ubiquitous Collaboration," White Paper, SRI International, September 20, 2001, last downloaded by the Examiner on January 13, 2006 from <http://nodal.sourceforge.net/NODAL-WhitePaper.html>, downloaded pages 1-32 [hereinafter "NODAL"], in view of Iverson, Lee, "[un re-II] Meeting Summary: 4 May 2000," Message id: 3912508E.2CF1B4C@eng.sun.com from Erick Armstrong, May 4, 2000, last downloaded by the Examiner on January 14, 2006, from: <http://hot.burningchrome.com/archives/unrev-ii/msg01068.html>, downloaded pages 1-3 [hereinafter "Iverson"].

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Regarding **dependent claim 1**, NODAL in view of Iverson teaches:

A method in a distributed document object model system for associating business logic, comprising:

(It is noted that a “business logic” is defined in the application as including an asynchronous mode wherein a client-side business logic component may not need to wait for the DDOM client to receive a response to a mutation request before the mutation routine returns. Specifically, see Iverson, page 27, third paragraph, stating: “Another advantage is that the server may send *any* update to the client at any time, thus fulfilling the need to notify the client when other users have modified content.” (Emphasis in the original). The Iverson example, of notification to clients of a change in a database, is nearly identical to the embodiment described in the disclosure, as follows: “As an example, the business logic component may monitor a financial database and cause mutations to occur to a document based on changes in the database.”

The distributed document object model DDOM, is taught in Iverson, first through third paragraphs.)

receiving a registration request from a business logic event handler for an event of the distributed document object model;

(See, NODAL, pages 26-27, teaching the asynchronous update routine. See also, NODAL, pages 20-21, teaching the “Cursor” interface that handles the data mutation interfaces as the business event logic handler.)

registering the business logic event handler; and

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(See, NODAL, pages 20-21, teaching that the "Cursor" is part of the software and is inherently registered to be in communication between the client and the server.)

when an event occurs, notifying the business logic event handler;

(See, NODAL, page 20, teaching the permissions for mutations are notified to the "Cursor" object.)

receiving an indication from the business logic event handler; and

(See, NODAL, pages 18-20, teaching messages from the "Cursor" object regarding requested mutations.)

performing a function relating to the received indication.

(See, NODAL, pages 18-20, teaching the editing functions.)

(NODAL teaches the business logic handler and its registration and function as claimed, but it does not expressly teach the distributed document object model (DDOM).

Iverson expressly teaches the DDOM.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Iverson and NODAL. Both NODAL and Iverson are in the same field of endeavor, multi-user hierarchical document editing and manipulation.

The suggestion or motivation to combine the references is that they are created by the same person, Iverson reporting the developmental creation of Lee Iverson, and NODAL being authored by Lee Iverson. In addition, see, NODAL, page 11, teaching that NODAL was designed to work with a wide variety of distributed networks.)

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Regarding **dependent claim 2**, NODAL in view of Iverson teaches:

The method of claim 1 wherein the event handler handles an event that is generated before a requested mutation is applied to a document.

(See the rejection of claim 1, above, made applicable hereto. See also, NODAL, pages 18-21 teaching engaging the "Cursor" object before a mutation.)

Regarding **dependent claim 3**, NODAL in view of Iverson teaches:

The method of claim 2 wherein the event handler is registered for a document type.

(See, NODAL, page 29, teaching the system, and inherently the "Cursor" object, enabled for an "image" type document.)

Regarding **dependent claim 4**, NODAL in view of Iverson teaches:

The method of claim 2 wherein the handler disallows the requested mutation.

(See, NODAL, pages 18-19, teaching disallowing editing requests.)

Regarding **dependent claim 5** NODAL in view of Iverson teaches:

The method of claim 2 wherein the handler allows the requested mutation.

(See, NODAL, pages 18-19, teaching allowing editing requests.)

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Regarding **dependent claim 6**, NODAL in view of Iverson teaches:

The method of claim 2 wherein event handling is performed on a client computing device.

(See, NODAL, pages 9-10, teaching that the NODAL system may be either client-side or server-side.)

Regarding **dependent claim 7**, NODAL in view of Iverson teaches:

The method of claim 2 wherein event handling is performed on a server computing device.

(See, NODAL, pages 9-10, teaching that the NODAL system may be either client-side or server-side.)

Regarding **dependent claim 8**, NODAL in view of Iverson teaches:

The method of claim 1 wherein the event handler handles an event that is generated when a requested mutation is applied to a document.

(See, NODAL, page 20, teaching that the "Cursor" object processes the entire content of the reference, including the mutation.)

Regarding **dependent claim 9**, NODAL in view of Iverson teaches:

The method of claim 1 wherein the event handler handles an event that is generated after a requested mutation is applied to a document.

(See, NODAL, page 20, teaching that the "Cursor" object maintains an audit trail after

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mutations are made.)

Regarding **dependent claim 10**, NODAL in view of Iverson teaches:

The method of claim 1 wherein the event handler enforces a business rule.

(See, NODAL, page 20, teaching that the "Cursor" object enforces business rules related to permissions to make mutations.)

Regarding **dependent claim 11**, NODAL in view of Iverson teaches:

The method of claim 10 wherein a business rule requests a mutation to a hierarchical document.

(See, NODAL, page 20, teaching that the "Cursor" object enforces business rules related to permissions to make mutations.)

Regarding **dependent claim 12**, NODAL in view of Iverson teaches:

The method of claim 11 wherein an answer message is sent to a client that requested a mutation that caused the event handler to enforce the business rule that requested the mutation.

(See, NODAL, page 20, teaching that a program accessing the NODAL repository for any purpose other than browsing will deal primarily with the "Cursor" interfaces. See also, NODAL, page 27, teaching messaging from the server, "Cursor" object, regarding mutations.

Regarding **dependent claim 13**, NODAL in view of Iverson teaches:

The method of claim 12 wherein a broadcast message is sent to another connected client.

(See also, NODAL, page 27, teaching messaging from the server, "Cursor" object, can send any update messages to the client at anytime, which inherently includes a message to any client at any time.)

Regarding **dependent claim 14**, NODAL in view of Iverson teaches:

The method of claim 11 wherein the business rule requests the mutation without a corresponding request from a client.

(See, NODAL, page 20, teaching that the "Cursor" object may determine the minimal path from a mutation to the document's root node without user direction.)

Regarding **dependent claim 15**, NODAL in view of Iverson teaches:

The method of claim 14 wherein a broadcast message is sent to all connected clients.

(See also, NODAL, page 27, teaching messaging from the server, "Cursor" object, can send any update messages to the client at anytime, which inherently includes a message to any client at any time.)

Regarding **claims 16-30**, claims 16-30 incorporate substantially similar subject matter as claimed in claims 1-15, respectively, and are rejected along the same rationale.

15. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Response to Arguments

Applicants' arguments filed July 20, 2006 have been fully considered, but they are not persuasive.

Regarding rejections of claims 1 and 16:

Applicants argue that NODAL and Iverson [referred to as "Anderson" by the Applicant, fail to teach or suggest a "business logic event handler," arguing further that a business logic event handler "is an object that enforces business logic." See, Applicants' Remarks, page 13.

The Examiner disagrees.

It is noted that a "business logic" is defined in the application as including an asynchronous mode wherein a client-side business logic component may not need to wait for the DDOM client to receive a response to a mutation request before the mutation routine returns. Specifically, see Iverson, page 27, third paragraph, stating:

"Another advantage is that the server may send *any* update to the client at any time, thus fulfilling the need to notify the client when other users have modified content." (Emphasis in the original). The Iverson example, of notification to clients of a change in a database, is nearly identical to the embodiment described in the disclosure, as follows: "As an example, the business logic component may monitor a financial database and cause mutations to occur to a document based on changes in the database."

See also, NODAL, pages 26-27, teaching the asynchronous update routine. See also, NODAL, pages 20-21, teaching the "Cursor" interface that handles the data mutation interfaces as the business event logic handler. See also, NODAL, page 27, teaching a business logic event handler such that mutations to the file may be automatically messages to a client, or may be delayed for processing.

See also, NODAL, pages 20-21, teaching that the "Cursor" is part of the software and is inherently registered to be in communication between the client and the server.

See also, NODAL, page 20, teaching the permissions for mutations are notified to the "Cursor" object.

See, NODAL, pages 18-20, teaching messages from the "Cursor" object regarding requested mutations.

See, NODAL, pages 18-20, teaching the editing functions.

NODAL teaches the business logic handler and its registration and function as claimed, but it does not expressly teach the distributed document object model (DDOM).

Iverson expressly teaches the DDOM. The distributed document object

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model DDOM, is taught in Iverson, first through third paragraphs.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Iverson and NODAL. Both NODAL and Iverson are in the same field of endeavor, multi-user hierarchical document editing and manipulation.

The suggestion or motivation to combine the references is that they are created by the same person, Iverson reporting the developmental creation of Lee Iverson, and NODAL being authored by Lee Iverson. In addition, see, NODAL, page 11, teaching that NODAL was designed to work with a wide variety of distributed networks.

Regarding objections to the drawings:

FIRST: Applicants argue that they are unable to find a requirement for lead lines in MPEP 608.02(q), as cited by the Examiner, arguing further that lead lines are "unnecessary if it clear from the drawing to which blocks or elements the reference characters correspond." See, Remarks , page 14, section II.(A).

The Examiner disagrees.

The Examiner is not aware of a rule where lead lines are unnecessary if it is clear from the drawing. However, MPEP 608.02(q) is clear, stating: "Lead lines are required for each reference character except for those which indicate the surface or cross section on which they are placed. Such a reference character must be underlined to make it clear that a lead line has not been left out by mistake."

SECOND: Applicants argue that they can find no prohibition against placing

labels within shaded regions of a drawing in MPEP 608.02(p), as cited by the Examiner. See, Remarks, page 14, section II.(C).

The Examiner disagrees.

MPEP 608.2(p)(3), states: "Numbers, letters, and reference characters must measure at least .32 cm. (1/8 inch) in height. They should no be placed in the drawing so as to interfere with its comprehension. Therefore, they should no cross or mingle with the lines. They should not be placed upon hatched or shaded surfaces."

THIRD: Applicant claims to be unable to find a reference to MPEP 608(h), as cited by the Examiner. See, Remarks, page 15, section II.(E) It is noted that this was a typo, which should have been to MPEP 608.02(h). In that MPEP 608.02 was cited 14 times in the drawing rejections, including other citations to MPEP 608.02(h), the Examiner believes that the typo should have been obvious.

FOURTH: Applicants additional arguments regarding objections to the drawings have been considered and are not found to be persuasive. Accordingly the following objections are maintained:

Regarding all Figures, generally: Lead lines are generally missing. Lead lines are required for each reference character except for those that indicate the surface or cross section on which they are placed. See MPEP 608.02(q).

Applicants are required to review all figures and make appropriate corrections in order to comply with 37 CFR 1.121(d) and MPEP 608.02(q).

Regarding Figures 3, 7B, 7C, 7D, 15, 16, 17, and 18: Reference numbers to the items therein are necessary to understand the figures. See, 35 U.S.C. 113.

Regarding Figure 1: Items 106, 108, and 112 contain labels within shaded regions. Numbers, letters, and reference characters should not be placed upon shaded surfaces. See, MPEP 608.02(p)(3).

Regarding Figure 3: Two items are labeled "302." The same reference character must never be used to designate different parts. See, MPEP 608.02(p)(5). It is suggested that if the parts are similar, applicants may identify the parts as "302A" and "302B," or adopt a similar distinctive identification scheme.

Regarding Figures 3 and 4: Parts of Figure 4 appear to be an expanded view of part of Figure 3, but the relationship between the Figures is not clear. It is assumed that Applicants intended to further illustrate the relationships between items on Figure 3 in Figure 4, and based on that assumption, Applicants are directed to clearly show that relationship. See, MPEP 608.02(h) for guidance in showing exploded and partial views.

Further regarding Figures 3 and 4: It appears that items in Figure 3 also appear in Figure 4, but under different identification numbers. The same part of

an invention appearing in more than one view of the drawing must always be designated by the same reference character. See, MPEP 608.02(p)(4). For example, the same items with multiple reference numbers include: 302 as 401; 304 as 407; 306 as 413; 310 as 410; and, many other multiple numbers.

Applicants are required to review all Figures and make appropriate correction such that the identification numbers are uniform and consistent.

Regarding Figure 4: Items 418, 420, and 422 are not related to the rest of the figure. The disclosure identifies relationships for the items, but such relationships are not identified in the drawings. Specifically, item 418 is disclosed to relate to DDOM Client 407 through the DDOM protocol adapter and Message layer 412, but no such relationship is shown in the drawing. See, Specification, paragraph [0080]. Similarly, relationships are disclosed in paragraphs [0085] for items 420 and 422, but such relationships are not shown in the drawing. Appropriate correction is required.

Regarding Figure 7A: This Figure appears to be an exploded view of the "Server: MutateTree Routine" identified in Figure 10A, item 1014. Appropriate correction is required to properly identify the relationship of Figure 7A to Figure 10A and to make the reference numbers uniform and consistent. See, MPEP 608.02(h) and 608.02(p)(4).

Regarding Figure 8: This appears to be a full or partial exploded view of the "Broadcast" as disclosed in Figure 4, item 422. The relationship, if any, of this Figure must be clarified in relation to any other figures or items. See, MPEP 609.02(h).

Regarding Figure 9: The decision flow appears to be in error. Specifically, decision elements leading from items 904 and 906 do not make sense logically. In addition, it is unclear but appears from comparing Figure 9 to the disclosure, [00123], that the flow arrow from 908 to 916 should be to 908 instead. It also appears that the start should lead to block 906. Appropriate correction to accurately reflect the decision flow is required.

Regarding Figure 10A: It appears that items 1014 and 1016 are condensations of full or partial views disclosed in Figures 7A and 10B respectively. See, MPEP 608.02(h). Appropriate correction to accurately reflect the relationship between the views is required.

Regarding Figure 10B: As discussed above, it appears that Figure 10B is a full or partial exploded view of Figure 10A, item 1016. Appropriate correction to accurately reflect the relationship between the views is required.

Regarding Figure 14: Item 1413 does not appear in the disclosure. Reference characters not mentioned in the description shall not appear in the drawings.

See, MPEP 608.02(p)(5). Appropriate correction is required.

Regarding Figures 16, 17, and 18: These drawings appear to present a flow of data or information, but it is unclear what is being shown and to where the various flow lines lead. See, 35 U.S.C. 113. As is noted above, reference numbers should assist in making the figures more clear. It is also suggested that Applicants consider using alternative flow chart diagrams to show illustrate the invention.

Regarding Figures 1, 5, 6, 9, and 11: Figures 1, 5, 6, 9, and 11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS for the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Botts whose telephone number is 571-272-5533. The examiner can normally be reached on Monday through Friday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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